

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

**SOUTH FLORIDA WATER MANAGEMENT DISTRICT
Water Resources Advisory Commission (WRAC)
Lake Okeechobee Committee
SANIBEL HARBOUR RESORT
17260 Harbour Pointe Drive, Ft. Myers, FL 33908
Wednesday, August 31, 2005**

Attending – Committee Members

Susan Brookman	Mary Ann Martin	Ray Scott
Joe Collins	Barbara Miedema	Kim Shugar
Dennis Duke	Christine Mills (for Gene	Craig Tepper (for Jack
Richard Earp	Duncan)	Smith)
Don Fox	Roland Ottolini (for Jim	Ken Todd
Beverly Grady	Lavender)	Malcolm "Bubba" Wade
Paul Gray	Barry Rosen	
Kevin Henderson	Judy Sanchez	

Absent: Doug Bournique, Bob Butler, David Hazellief, David Lithgow, Frank Marsocci, and Jody Thomas

Staff:

Rosie Byrd	Chip Merriam	Dean Powell
Susan Gray	Sally McPherson	Rick Smith
Bob Howard	Cal Neidrauer	

WRAC Members: Harry Cronin and Carolyn Kennedy

1. Welcome and Introductions - Call to Order. Chair Carlson called the meeting of the WRAC Lake Okeechobee Committee (Committee) to order at 9:15 a.m. She welcomed all the attendees to the meeting and to Ft. Myers. She asked that everyone keep the residents of Louisiana, Mississippi and Alabama in their prayers due to the devastation that area has received by Hurricane Katrina.

2. Member Issues - Members' Discuss Their Interests Regarding Lake Okeechobee, by Chair Carlson.

All Committee members introduced themselves and provided comments on their representations and issues of concern.

3. Lake System Operations and Lake Hydrology, by Bob Howard, Director, Operations Control and Vegetation Management Department, SFWMD.

Mr. Howard presented current information on water conditions throughout the area. He called for any questions on his report.

Question and Answer Session:

Mary Ann Martin: Water budget was discussed, including the June rainfall. Mr. Howard provided information.

Craig Tepper: Levees in New Orleans were designed for a Category 3 hurricane and Dennis Duke, USACOE was asked what the levees around Lake Okeechobee were designed to withstand what category storm. Mr. Duke provided information on what would (could) cause a breach in the dike.

Joe Collins: He asked for information regarding the Upper Basin water that has been received because of Hurricane Katrina and the water levels/elevations. Mr. Howard provided information. The Kissimmee River Basin and Lake Istokpoga were discussed regarding current and historic water levels.

Don Fox: He asked what the estimate of lake levels was in the future and Mr. Howard said that was very hard to estimate. Storage outside the management system and runoff was discussed.

Kevin Henderson: He discussed the importance of the Lake Okeechobee Report that was prepared in 1979 and he urged the Committee members to read the report. Lake levels and land around the Lake were discussed. Mr. Howard provided information on Lake Kissimmee water levels in the Upper Basin.

Beverly Grady: Level 3 pulse releases and the cfs flows were asked about and Mr. Howard provided information. Evaporation and releases to the east were questioned.

Bubba Wade: Conservation Area 3 and the impacts from Hurricane Katrina were asked about and Mr. Howard provided the information and said there was very little impact. Mr. Duke provided information on storm surge and what the effects were to Conservation Area 3.

Richard Earp: He said the "Call-in" from county officials was very helpful during storm events. Rainfall estimates, emergency information, and other reporting was very good. He requested that a couple of those be done every day during an emergency situation. Mr. Howard provided information on what the SFWMD does in such situations. Mr. Earp expressed his appreciation for the reports from SFWMD.

Ken Todd: Storage capabilities in the EAA area was asked about and Mr. Howard provided information on the areas that have availability for storage. Mr. Todd said that additional land for storage of water is very important and everyone should work on this matter.

Mary Ann Martin: Lake Okeechobee is critical. She asked if increases in discharges could be done and Mr. Howard said this is the subject of much debate and options are being reviewed. Mr. Wade provided the Governing Board's perspective on this issue, and said the water regulation schedule is used. Discharges have been made above the regulation schedule, but this could cause harm to other areas. Mr. Howard provided additional information on deviations of the WSE. Paul Gray spoke of additional water releases and why his organization (Audubon Society) did not demand larger releases because too much water released would cause harm to the estuaries. Land for water storage is the name of the game. General discussion held on the Lake levels and rainfall in the areas.

4. Preliminary Analysis of a Managed Lake Okeechobee Stage Recession, Cal Neidrauer, Chief Consulting Engineer, Operations Control and Vegetation Mgt. Dept., SFWMD

Mr. Neidrauer presented information on this subject. He acknowledged the hard work that has been done by the "Analysis Team" at SFWMD. Topics covered were the:

- Purpose
- Questions addressed
- Analysis Methodology
- Projected Benefits and Impacts
- Summary
- Recommendations

Questions that were answered in the presentation were:

- Why lower the lake stage?
- What is the stage target that is presumed to improve the Lake health?
- Can the stage target be reached?
- Will attempting to reach the stage target adversely affect other ecosystems or water supply? Will it reduce potential impacts to the Lake levee?
- Should the Lake state on November 1, 2005 be a factor in deciding whether or not to begin a managed recession?
- What are the stage thresholds that, if exceeded, should trigger discontinuation of the managed recession?
- Are the potential benefits to the Lake Worth the potential costs?

Information on the Alternative Regulation Schedules was provided. The "Position Analysis" was explained. Alternatives to the WSE were discussed. STA $\frac{3}{4}$ water analysis was discussed.

(Break at 10:45 a.m. – Reconvene at 11:00 a.m.)

The projected benefits and impacts to Lake Okeechobee, Lake Levee, Caloosahatchee & St. Lucie Estuaries, Everglades WCA-3A, and the Lake Okeechobee Service Area Water Supply were explained by Mr. Neidrauer. Information on achieving the stage target and the Lake stage of less than 10.0 feet was given.

Questions on Lake Okeechobee Projected Benefits and Impacts:

Mr. Henderson: Comparisons of the data and achieving the designated target – is this included in the data? Mr. Neidrauer said yes, this was done.

Don Fox: Alternatives? The information will be provided later in the presentation.

Return to Presentation:

Information on the Lake Levee – the change of stage falling below 13.5 feet at beginning of wet season. Presentation material provided on the St. Lucie Estuaries.

Questions on Lake Levee, Caloosahatchee & St. Lucie Estuaries Projected Benefits and Impacts:

Ms. Grady: St. Lucie Estuaries asked about salinity levels and over what period of time, and what the graphs cover. Mr. Neidrauer provided the information,

Mr. Gray: Lake Okeechobee water level options for a time period of a year or so. Mr. Neidrauer said it is impossible to determine the amount of rainfall. Mr. Gray discussed the recovery. Mr. Neidrauer reminded the group of the discharges is from November through the spring and the majority do occur during the spring.

Jim Lavender: Salinity levels that go up and the timelines were asked about. Mr. Neidrauer said Alternative 2 is more sensitive to the estuaries during the growing season.

Mr. Henderson: St. Lucie timeline from now through February was mentioned. He believes the estuary right now is ruined and he said they would rather take all the damage now, not in the future. Timing is very important to consider in deciding which alternative to use.

Return to Presentation:

Information on the negative and positive impacts associated with managed recession in Everglades WCA-3A was provided.

The Lake Okeechobee Service Area Water Supply was discussed last.

In summary, answers to the questions outlined above was provided. The next steps are to present the results to WRAC and SFWMD Governing Board. If directed by the Governing Board, a formal request would be made to the USACE to secure a temporary deviation to implement a managed recession. If a decision was made to proceed, an explanation of the further objectives were provided.

Question and Answer Session:

Barbara Miedema: Is the WRAC Lake Okeechobee Committee to make a recommendation today? Mr. Neidrauer said the role of this group is up to the Chair of the Committee. Mr. Wade said his opinion, as a Board member, that the Lake is in trouble and information needs to be given and a decision should be made by December. Come November, if the Lake is below 15.5 then the Governing Board will make a decision. Staff needs to keep telling the Board the status of the Lake. Ms. Miedema asked if "leeway" time is needed and Mr. Wade and Mr. Duke provided information on the timelines. Short-term timelines were discussed and Mr. Duke estimated that 30 to 45 days would be needed. Mr. Wade asked about the process required regarding asking for deviation of the schedule and Mr. Duke responded. Environmental impact assessments were commented upon.

Barry Rosen: Comments made and questions asked regarding the water treatment capacity and water that would go south into the estuaries. Mr. Neidrauer provided information.

Mr. Fox: Biological science, improvements to the Lake, and the least amount of impact to the estuaries was some of the topics discussed. Impacts to the estuaries must be done after assurances that there will be significant improvements to the Lake. Lake level of 12.0 feet needs to be reached earlier than April. He gave biological information on the benefits to the estuaries that need to be achieved, as well as the negative impacts. There is concern regarding the mid-April target of 12.0 feet. Discharges earlier in the year were suggested. Mr. Wade asked Mr. Fox to be a part of the integral part of the team of SFWMD staff, and the releases from the Lake must be done with the least amount of impact to the estuaries. Mr. Fox spoke of another alternative.

Mr. Wade: A Lake level of 12.0 feet and the impact that would not occur if this was achieved was discussed. The theory of getting the Lake down to 12.0 feet is not feasible and then there would not be impacts to the estuaries. Mr. Neidrauer gave information on a managed recession and "lake stage memory". Mr. Wade spoke of the increased and decreased storage if operating the Lake at lower levels. Dr. Gray spoke on the regulatory releases and achieving the correct impacts. Ms. Grady provided information on analysis of water leaving the Lake.

Mr. Duke: He asked for more information on the Analysis figures presented earlier. Mr. Neidrauer said they will be posted to the District's website. Mr. Neidrauer said the USACE has not seen the figures, but staff members have discussed this with them.

Ms. Martin: She provided comments on the areas around the Lake that need to be exposed more, and burning in certain areas is needed. She asked the USACOE representative what they have determined should be the best Lake levels around the dike. Mr. Duke provided information.

Mr. Rosen: Recommended some performance measures be established with the current information.

Mr. Gray: Due to the time delays and approval process, he asked that the USACE go ahead and set up the process to begin the approval process for deviation of the WSE. He agreed with performance measures being established. Without recommending a specific drawdown schedule, he again recommended the USACOE begin the process. No matter what, the Lake needs to be drawn down by the spring.

Craig Tepper: Comments were made on a "normal rainfall year", and he asked Mr. Neidrauer what alternative is the best and Mr. Neidrauer said he could not answer that question and he had no recommendation. This would have to be a Governing Board decision.

Susan Brookman: Comments were given on the water tables, performance measures, and alternatives. She asked for more information on forward pumps and why they cannot be made a part of the equation. Mr. Howard and Mr. Neidrauer provided information on forward pumps. Mr. Wade provided his perspective on forward pumps.

Mr. Gray: He asked for further information on the modeling results and how the results were achieved, and the WSE and the water through the Caloosahatchee. Mr. Neidrauer provided information.

Chair Carlson provided information on the questions that have been asked.

Public Comment:

Jennifer Hecker, representing the Conservancy of Southwest Florida, Naples, Florida. She asked a question on performance measures and spoke on high salinity that measures the percentage of flows and Mr. Neidrauer provided information.

Announcement:

Rick Smith provided information that on September 27th there would be a field trip in the Clewiston area if there was sufficient interest by the Committee members. Mary Ann Martin has offered to provide a pontoon boat for WRAC Lake Okeechobee Committee members to tour Lake Okeechobee. He asked for the members to decide if they would like to have the tour by a show of hands and by email. The next meeting of the Committee will be held on September 28, 2005.

Chair Carlson recessed the meeting at 12:15 p.m. and reconvened the meeting at 1:10 p.m.

5. Lake Okeechobee Regulation Studies and Current Scoping Process, Richard Dasher, Project Manager U.S. Army Corps of Engineers, Jacksonville District.

Mr. Dasher presented information on the subject. Ms. Miedema asked a question regarding the Phase 3 (Temporary Deviation with Environmental Assessment) and Mr. Dasher and Mr. Duke provided information.

Presentation continued with information on Phase 4, and Phase 4 Sub-Phases.

Ms. Grady: Explain the rate of rise in phases. Mr. Dasher provided information. Mr. Duke gave additional data regarding the USACE's process regarding discharges.

Presentation continued with information on possible Phase 4b Alternatives. Mr. Neidrauer provided additional data on this alternative, including information on "banking" of regulatory releases.

Ms. Miedema: She asked if the USACOE considering forward pumps as it relates to the Phase 4b schedule – modeling/water control plan and NEPA. Mr. Duke provided information.

Presentation continued.

Mr. Gray: Asked if comments are still being accepted on the NEPA process and Mr. Dasher said yes, and he gave his email address.

Questions and Comments:

Mr. Gray: Zone E was discussed, and he said he hoped that when everyone is getting all the water they need, the estuaries are protected.

Ms. Grady: The Environmental Impact Statement, and the impact of the changes on the estuaries depending on the schedule, was discussed. By reviewing the charts, estuary releases were questioned. Mr. Neidrauer provided information on historical data. Ms. Grady said that by looking at the big picture, water releases in WCA 3, and the alternatives, what will happen when CERP is included in analysis? How will CERP change the amounts of water in the estuaries? Mr. Neidrauer and Mr. Duke provided the information requested. Mr. Wade provided information on Acceler8 and CERP; as well as MOD Waters.

Mr. Tepper: Spoke on the Impact Statement and asked what the restrictions on moving the water would be, regarding forward pumping. Mr. Neidrauer and Mr. Howard provided information. Peter Kwiatkowski is the SFWMD contact for further information.

Mr. Wade: Mr. Wade said replacement of WSE is a long-term fact, and schedules 4a and 4b should be discussed. Mr. Duke spoke of some of the options that should be available for 4a by next May, with 4b in November 2006. 4b is the current replacement of the WSE. Mr. Duke explained the USACE's current plan and what will be needed in the future. Mr. Wade asked if the SFWMD Governing Board needs to request the

USACE on the deviations from the WSE needed, and Mr. Duke said the sooner the better.

Ms. Miedema said two other pieces need to be addressed – the Supply Side Management Plan, and what happens at the Minimum Flows and Levels (MFL) point.

Mr. Rosen spoke of “significant harm” to the Lake and regulation schedules. Mr. Neidrauer said this is a problem that needs to be fixed. The spring drawdown was discussed. Mr. Neidrauer and Mr. Duke provided information on the current deviation schedule. Chair Carlson and Mr. Wade provided input from a Governing Board perspective.

Mr. Henderson: Asked for additional information on modeling and said the environmental benefits are not included in the modeling. Are you going to adjust the input to the model to reflect the benefits? Mr. Dasher and Mr. Neidrauer gave additional information. Mr. Duke gave further information. Mr. Henderson provided more comments on the future of the success of the deviations to the WSE and Mr. Neidrauer acknowledged the points that were made.

Mr. Gray: Supply Side Management (SSM) is not part of the WSE, and he asked about the EIS and modifications to Supply Side Management. He thinks it would be best to try to do those two together. Mr. Neidrauer provided information on 4b and modifications to the Supply Side Management. Dean Powell, SFWMD, provided information on Supply Side Management. Mr. Wade provided comments on the last deviation, and the impact on SSM. Mr. Duke provided more information on this subject. Mr. Wade asked Mr. Duke for information on what the process is to express what the District Governing Board wants to do, if they do not know exactly what they want to do? Mr. Duke said all information should be sent to the USACE as soon as possible.

Mr. Fox: The CPC outlook is still wet for the fall? Mr. Neidrauer said it was.

6. CERP Lake Okeechobee Watershed Projects Update, David Unsell, Lead Project Manager, CERP and Federal Programs, SFWMD.

Mr. Unsell presented information on the subject. The fast track approach was discussed. Some decisions have been made. One is the decision to manage the TCNS area and the forward pumps separately.

Mr. Gray: He asked if the forward pumps were on the south end of the Lake. Mr. Unsell said there are seven locations, with three on the south side. Mr. Gray said since there is no SSM plan, how can the District move forward and Mr. Unsell explained the analysis of the decision. Mr. Gray asked for further information on forward pumps and what could occur in the future. Mr. Unsell said the EIS and SSM process is simply a “process”. No plan is established regarding purchasing of forward pumps and nothing will be done overnight. Mr. Wade spoke of temporary pumps and permanent pumps in regard to the cost, use, etc. Mr. Henderson spoke on permanent forward pumps and

the 4b temporary pumps, as well as other issues. Mr. Wade and Mr. Duke gave information. Mr. Gray spoke more on forward pump matters.

Return to presentation. Mr. Unsell gave information on a six step planning process. Mr. Unsell acknowledge all the parties that have been involved in the planning process.

The Lake Okeechobee Watershed Project (LOWP) process at the four year mark was established. In the Plan Formulation the final product was = 3 to 5 alternatives to undergo detailed evaluations. Mr. Unsell presented information on the process, including information on the topics of "What to Build?"; LSM Model Output, Basin Land Optimization Boundaries; alternative formulation; planning areas; LOWCAP overview and output; P-Load reduction target; IWR Plan; P-Load Reduction in LOWP Planning Area; Planning Area P Load Targets; comparison of storage; Kissimmee, Istokpoga, and FEC – top ranked PPAA; optimization of PAAs; PAA site optimization addressed; optimization modeling approach; water budget processes; and reservoir sizing.

In summary, staff have identified the five most cost effective PAAs in each of the four planning areas; established the most efficient footprints; developed capacities for structures, canals, pumps, etc.; and re-sized large reservoirs for efficient use of real estate.

Mr. Unsell provided the identification of final alternatives and the conceptual design and cost; and watershed alternatives. The final 10 watershed alternatives were reviewed. Total project cost and the conclusions were provided.

Ken Todd: Asked about the timelines and conclusions. Mr. Unsell provided information. Comments were made regarding the cost of \$622 million and not meeting the criteria for phosphorus reduction. Mr. Unsell spoke of the Lake Okeechobee Protection Plan (LOPP) and removing 60% of the load coming out of the basin, and the other 40% is being worked on in other projects. Mr. Todd spoke of the BMPs around the Lake and the amount of phosphorus coming from other areas around the state and asked if something can be done to reduce the amount. Susan Gray, Director, Lake Okeechobee Division, SFWMD, provided information.

Joe Collins: He spoke on optimizing footprints to reduce costs, and he said he wants to make sure TMDO is brought back. The Plan must meet the TMDO. Mr. Unsell addressed options and the costs. Mr. Collins spoke of the importance of this issue.

Mr. Gray: Hydromentia as a way to get phosphorus out of the water was discussed. Are there hydromentia alternatives in the works? Mr. Unsell responded that this is a possibility and companies are being investigated. The concept seems to have some value and is worth considering.

Mr. Wade: STAs and water storage were topics discussed. The amount of acreage to fix this was discussed. Mr. Unsell said approximately 40,000 acres will be needed. General discussion of acreage and costs for land acquisition and water storage. It is

really expensive. The study area covers 1600 square miles. Mr. Gray spoke on the high costs.

Question and Comment Session:

Joe Collins: Is there a *Project Management Schedule* that will show when (or if) the ASRs are successful? Rick Smith said that Pete Kwiatkowski will give a report at the October WRAC meeting. General comment by several stakeholders. Mr. Collins said we are several years away from building ASR.

Ms. Grady: She asked Dean Powell to give an update on monitoring programs. Mr. Powell reported that there are 41 stations, samples have already been taken, no results are back yet, will continue to do sampling every couple of weeks and then will drop back to once a month. The results should be coming in soon and will be posted to the District's website. The utility companies are cooperating and doing what they can do with water quality monitoring. Mr. Henderson asked about the blue-green algae and Mr. Powell provided information. Mr. Rosen provided information. Mr. Henderson said the District is going to ask the USACE to take action and he supports that action. Anything the District can do to move along the process will be welcome.

Mr. Wade: All Committee members were urged to contact staff members to ask what the appropriate action should be regarding issues discussed today. A quick update of calendar activities was listed by Mr. Wade. The Lake Okeechobee Sub-Technical Committee was discussed and what will be included in the future report. This will be a "fact based" report. Mr. Smith provided comment.

The next regular WRAC meeting will be held on September 8 at Ft. Myers, Florida.

The next WRAC Lake Okeechobee Committee meeting will be held on September 28, 2005.

Adjourn at 3:05 p.m.

Alice Carlson
Chair
Water Resources Advisory Commission
Lake Okeechobee Committee

Recorded By:

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